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Renilla Luciferase Assay Kit 2.0

Highly sensitive & linear flash-type luminescence assay for measuring *Renilla* luciferase activity in transfected cell reporter gene assays.



Product attributes

Assay type/options	Endpoint assay, Luminescence (flash-type)
Detection method/readout	Luminometer (single-tube or microplate reader with reagent injectors)
Storage Conditions	Store at -60 °C or below

Product Description

This kit is designed to measure *Renilla* luciferase (RLuc) activity in transfected cell reporter gene assays.

Renilla luciferase has been used as a reporter gene for studying gene regulation and function *in vitro* and *in vivo*. It commonly is used in multiplex transcriptional reporter assays or as a normalizing transfection control for firefly luciferase assays. *Renilla* luciferase, a monomeric 36,000 Dalton protein, catalyzes coelenterazine oxidation by oxygen to produce light. The enzyme does not require post-translational modification for its activity and may function as a genetic reporter immediately following translation. Coelenterazine also emits light from enzyme-independent oxidation, a process known as autoluminescence. The autoluminescence is enhanced by superoxide anion and peroxynitrite in cells and tissues. This assay kit utilizes a special buffer formulation designed to yield reliable, linear measurements of *Renilla* luciferase activity with minimal autoluminescence background and superior sensitivity.

Note: This kit is a flash-type luminescence assay, which requires luminescence to be measured immediately after adding reagents to your sample. It requires a single-tube luminometer or a luminescence microplate reader with reagent injectors.

Easy-to-Use for Consistent Results

This kit is a new and improved replacement for the *Renilla* Luciferase Assay Kit (catalog no. 30004). In addition to providing a simplified protocol, the *Renilla* Luciferase Assay Kit 2.0 features Biotium's Aquaphile™ Coelenterazine, a water soluble substrate that can be stored at -20 °C with minimal evaporation, unlike methanol solutions of coelenterazine.

The stated number of assays is based on 96-well assay format. The kits include enough Passive Lysis Buffer to perform the stated number of assays in plate sizes ranging from 96-well to 24-well. If needed, additional 5X Passive Lysis Buffer (catalog no. 99912) can be purchased separately (see below).

Biotium also offers the Firefly & *Renilla* Luciferase Single Tube Assay Kit (catalog no. 30081), a combined luciferase assay kit for sequential measurement of Firefly and *Renilla* luciferase activity sequentially in the same sample with high sensitivity and linearity.

More Luciferase Kits & Related Products

Biotium Cat. No.	Product	Description	Promega Assay	Promega Cat. No.
30138	Steady-ATP™ HTS Viability Assay Kit	Highly sensitive ATP-based cell luminescent viability assay with signal half-life of 5 hours for high-throughput screening in multi-well plates.	CellTiter-Glo® Luminescent Cell Viability Assay	G7570, G7571, G7572, G7573
30085	Firefly Luciferase Assay Kit 2.0	Flash-type firefly luciferase assay kit.	Firefly Luciferase Assay System	E1483, E1500, E1501, E4030, E4530, E4550
30075	Firefly Luciferase Assay Kit (Lyophilized)	Firefly luciferase assay kit with lyophilized assay buffer for economical room temperature shipping and convenient storage at -20°C.		
30028	Steady-Luc™ Firefly HTS Assay Kit	Glow-type firefly luciferase assay with signal half-life of about 3 hours for high-throughput screening in multi-well plates.	Steady-Glo® Assay System	E2510, E2520, E2550
30028L	Steady-Luc Firefly HTS Assay Kit (Lyophilized)	Steady-Luc kit with lyophilized assay buffer for economical room temperature shipping and convenient storage at -20°C.		
30082	Renilla Luciferase Assay Kit 2.0	Flash-type Renilla luciferase assay kit.	*Renilla* Luciferase Assay System	E2810, E2820
30081	Firefly and Renilla Luciferase Single Tube Assay Kit	Assay kit for measuring firefly and Renilla activities sequentially in the same sample in a single tube.	Dual-Luciferase® Assay System (Firefly & *Renilla*)	E1910, E1960, E1980

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